

# First Year (Sem. I) B. C. A. Examination

October / November - 2003

## Paper - 103 : Computer Organization

Time : 3 Hours]

[Total Marks : 70

- Instructions:**
- i. Figures on the right indicate full marks
  - ii. Draw figures wherever necessary

**Q-1 Answer in brief the following questions:**

14

1. Explain how a cache memory reduces the effective memory access time.
2. What is multiprogramming? What are the objectives of multiprogramming?
3. Define a bus. What buses are used to connect I/O devices to the processor?
4. What are the advantages of transistors over vacuum tubes?
5. Define the term byte? What is the difference between a bit and a byte.
6. Differentiate between hardware, software and firmware.
7. What is HTTP?

**Q-2**

1. Classify computers on the basis of speed and capacity. 6
2. Explain the functioning of CPU. 6
3. What are the advantages and limitation of machine language 2

OR

**Q-2**

1. Define the term operating system. Explain its various functions. 6
2. Differentiate between high level and low level languages 6
3. What factors determine the storage capacity of disk? 2

**Q-3**

1. What are registers? Name some of the commonly used registers and briefly describe the function of each. 6
2. Give the full form of the following abbreviations and explain each of them: 8  
i. RAM      ii. ROM      iii. EPROM      iv. PROM

OR

**Q-3**

1. With a block diagram, explain the working of computer 5
2. Classify the term software, giving examples for each type 6
3. Compare floppy disk and hard disk 3

**Q-4**

1. A hard disk has 10 platters, 100 cylinders and 10 sectors per track. Each sector can store maximum 100 KB of data. Determine the maximum storage capacity of the disk. If one cluster is formed by using one sector, how many files of size 80 KB can be stored on the disk? 2
2. Describe the working and types of modems 6
3. How does a CDROM store data? Describe different optical storage media 6

OR

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[Contd...

**Q-4**

1. What is addressing mode? Describe with examples 6
2. Classify printers giving examples of each 3
3. Explain the role of various hardware and software components when a file is opened from MS Word. 5

**Q-5 Attempt any 2**

1. Write a note on Domain Name System 14
2. Explain the working of Electronic mail.
3. Explain web server and browser and communication between them.